AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

- 1.-4. (Canceled)
- 5. (Currently Amended) A method for enhancing an immune response in a subject, comprising
- a) isolating a population of cells comprising one or more of a mature B cell and a B cell progenitor from the subject;
- b) contacting the population of cells comprising one or more of a mature B cell and a B cell progenitor with a composition comprising (i) an IL-21 polypeptide comprising the amino acid sequence of SEQ ID NO: 1 or (ii) a variant thereof of the amino acid sequence of SEQ ID NO: 1 with 1-5 amino acid substitutions, deletions, or additions, wherein the IL-21 polypeptide comprises the amino acid sequence of SEQ ID NO: 1 and the variant retains the ability to bind to the IL-21 receptor and produce a physiological effect produced by binding of the IL-21 polypeptide comprising the amino acid sequence of SEQ ID NO: 1 to the IL-21 receptor, and wherein the population of cells optionally is contacted with at least one composition comprising an antigen, thereby inducing differentiation of at least one of the mature B cell and the B cell progenitor into one or more of a memory B cell and a plasma cell:
 - c) isolating or purifying one or more of the memory B cell and the plasma cell; and
- d) introducing at least one of the memory B cell and the plasma cell into the subject, thereby enhancing the immune response.
 - 6. (Canceled)
 - 7. (Canceled)
- 8. (Previously Presented) The method of claim 5, wherein the subject is a human subject.

- 9. (Canceled)
- 10. (Previously Presented) The method of claim 5, wherein the population of cells is contacted with at least one composition comprising an antigen.
- 11. (Original) The method of claim 10, wherein the antigen comprises a viral antigen, a bacterial antigen, or an antigen from a parasite.
- 12. (Previously Presented) The method of claim 5, wherein the B cell progenitor is an immature B cell.

13.-17. (Canceled)

- 18. (Currently Amended) A method for treating a subject with a condition comprising a specific deficiency of at least one of memory B cells and plasma cells, comprising
- a) isolating a population of cells comprising one or more of a mature B cell and a B cell progenitor from the subject;
- b) contacting the population of cells comprising at least one of a mature B cell and a B cell progenitor *ex vivo* with a composition comprising (i) an IL-21 polypeptide comprising the amino acid sequence of SEQ ID NO: 1 or (ii) a variant thereof of the amino acid SEQ ID NO: 1 with 1-5 amino acid substitutions, deletions, or additions, wherein the IL-21 polypeptide comprises the amino acid sequence of SEQ ID NO: 1 and the variant retains the ability to bind to the IL-21 receptor and produce a physiological effect produced by binding of the IL-21 polypeptide to the IL-21 receptor, and wherein the population of cells optionally is contacted with at least one composition comprising an antigen, thereby inducing differentiation of at least one B cell into one or more of a memory B cell and a plasma cell;
 - c) isolating the memory B cell, the plasma cell, or both; and
 - d) introducing at least one of the memory B cell and the plasma cell into the subject.
 - 19. (Canceled)

20. (Previously Presented) The method of claim 18, wherein the subject is a human subject.

21.-33. (Canceled)

- 32. (Previously Presented) The method of claim 1, wherein the composition comprises the IL-21 polypeptide comprising the amino acid sequence of SEQ ID NO: 1.
- 33. (Previously Presented) The method of claim 18, wherein the composition comprises the IL-21 polypeptide comprising the amino acid sequence of SEQ ID NO: 1.
- 34. (Previously Presented) The method of claim 1, wherein the composition comprises a variant of the amino acid sequence of SEQ ID NO: 1, wherein 1-5 amino acids of SEQ ID NO: 1 have been substituted, deleted, or added.
- 35. (Previously Presented) The method of claim 18, wherein the composition comprises a variant of the amino acid sequence of SEQ ID NO: 1, wherein 1-5 amino acids of SEQ ID NO: 1 have been substituted, deleted, or added.